Cable trays made of galvanized steel and aluminum alloy



Overview

Two common materials used in manufacturing cable trays are aluminum alloy (Alum Alloy) and galvanized steel (Galv Cable Tray).

Key Takeaways

Galvanized steel and aluminum alloy cable trays offer durable, corrosion-resistant solutions, with steel providing higher strength and load capacity, while aluminum offers lightweight, maintenance-free installation.

Galvanized Steel Cable Trays

Galvanized steel cable trays are made by coating low-carbon steel with zinc, either through hot-dip or electro-galvanization, which protects against rust and corrosion. Key features include: High strength and load-bearing capacity, suitable for heavy industrial cables and power systems. Durability and long service life, with low maintenance requirements.

Cost-effectiveness, often reducing installation costs by up to 85% compared to other materials. Versatility, available in ladder, ventilated, and channel designs for indoor and outdoor applications. Heat resistance, making them suitable for environments with high electrical loads.

Galvanized steel trays are ideal for industrial, commercial, and outdoor installations, especially where mechanical strength and protection against corrosion are critical.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Aluminum Alloy Cable Trays

Aluminum alloy cable trays are made from extruded or fabricated aluminum, often using copper-free alloys with magnesium and silicon for enhanced strength and corrosion resistance. Key features include: Lightweight, which simplifies handling and installation. Excellent corrosion resistance, due to the self-healing aluminum oxide layer, making them suitable for marine or chemically aggressive environments.

Non-magnetic and electrically non-conductive, reducing electrical losses and interference. Maintenance-free, with long-term durability in outdoor and industrial settings. Moderate strength, suitable for medium-duty applications but less capable of supporting very heavy cable loads compared to steel.

Aluminum trays are preferred in environments where weight reduction, corrosion resistance, and ease of installation are priorities, such as offshore platforms, coastal facilities, or light industrial applications. Comparison and ApplicationsFeatureGalvanized SteelAluminum AlloyStrengthHigh, supports heavy cablesModerate, suitable for medium loadsWeightHeavier, requires more supportLightweight, easier to installCorrosion ResistanceGood with zinc coatingExcellent, self-healing oxide layerMaintenanceLowMinimal, virtually maintenance-freeCostGenerally lower upfrontHigher material cost but lower installation effortTypical UseIndustrial, commercial, outdoorMarine, coastal, light industrial, indoorBoth materials are widely used in cable management systems, including ladder, ventilated, and channel trays, and can be complemented with accessories like brackets, covers, and fittings for secure and flexible installation.

The choice depends on load requirements, environmental conditions, and installation priorities.

Article Content

Alum Alloy Cable Tray VS Galv Cable Tray: A

Two common materials used in manufacturing cable trays are aluminum alloy (Alum Alloy) and galvanized steel (Galv Cable Tray). These

Cable trays

Cable trays We offer a wide range of cable tray systems to support tubing, electrical cables and instrumentation. Our cable trays are produced in fit for purpose

Product Catalogue Cable Management Solutions

With over 20 years of experience T&B Cable Tray provides a complete solution in cable management systems including design, manufacturing and technical support by offering a complete solution for

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Comparing Electrical Cable Tray Materials-Aluminium,

Aluminium, steel, or plastic? Compare key features of electrical cable tray materials to find perfect match for your building''s requirements.

Cable Tray Technical Guide A practical guide to product selection and ...

Cable Tray Technical Guide A practical guide to product selection and installation This guide for engineers and installers has been developed by ABB as a practical reference regarding cable tray

Cable tray manufacturer| Galvanised steel |Stainless Steel cable tray ...

As a cable tray manufacturer in India Hutaib electrical provides galvanised steel, hot-dip galvanising, Powder coated cable tray, aluminium cable tray and all the other material cable tray

Hot-Dip Galvanized vs. Aluminum | Cable Tray Institute

Steel cable tray with a Hot-Dip Galvanized after Fabrication (ASTM A123) finish has been used successfully for many years. Increasingly, however, aluminum is becoming the material of choice for

Cable Tray | EAE Electric | Medium & heavy duty cable trays

EAE Electric cable tray systems have been designed to and easy to install. Supply a complete range of cable tray including medium & heavy duty!

Anti-corrosive Cable Trays Selection: A Comprehensive

Learn how to choose the best anti-corrosive cable trays for your electrical system. Discover the ideal materials for mild, moderate, and severe

Cable Tray: Material Properties

Steel cable trays are used principally in environments which are relatively free from corrosive attack. They are available with various types of corrosion-resistant finishes; usually hot-dip or mill galvanized.

Complete Guide to Metal Cable Tray Materials in

What Is the Best Cable Tray Material? The best cable tray material depends on environment, load, corrosion level, and budget. In most projects:

Cable tray manufacturer| Galvanised steel |Stainless Steel cable tray ...

It also has other benefits like lightweight, durability, easy handling, has high resistance for chemical, weather, water, etc. Aluminum cable tray: Cable trays made-up of extruded aluminium are typically

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

WHY: All Aluminum Cable Tray Systems Equals Cable Management

Steel cable tray with a Hot-Dip Galvanized after Fabrication (ASTM A123) finish has been used successfully for many years. Increasingly, however, aluminum is becoming the material of choice for

Hot-Dip Galvanized Vs Aluminum Cable Trays | Cable Trays In India ...

Buy high quality cable trays from the leading cable tray manufacturer in India at the most affordable prices - Hutaib Electricals. Steel cable tray with a Hot-Dip Galvanized after Fabrication

What are the main types of galvanized cable tray?

1. What Is Pre-Galvanized Cable Tray? Pre-galvanized cable tray typically made from pre-galvanized steel, is a type of cable management system used to support and route electrical cables,

Aluminium Cable Trays | EAE Electric

The aluminium cable tray weighs approximately half as much as its steel equivalent. Aluminum cable trays do not rust and are highly durable, even in saltwater

Materials Used & Finishing Of A Cable Tray

Hot-Dip Galvanized: After the steel cable tray has been manufactured and assembled, the whole tray is immersed during a bath of molten zinc, leading to a coating of all surfaces, as well as all

Selecting the right materials for cable tray use at high temperatures

Aluminum, fiberglass, steel, and stainless steel are all readily available materials for cable tray manufacturing. These materials perform very well at ambient temperatures (0°F to 100°F). However,

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Contact Us

Continue your research online:

Website: https://fdsoluciones.es
Technical inquiry: https://fdsoluciones.es/project-enquiry.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved